

IN THE CLAIMS

1. (Currently amended) A water-based cyan ink for ink-jet printing, comprising ~~pigment particles or~~ water insoluble colored polymer particles,

wherein an ink-jet image is formed by jetting the water-based cyan ink on a porous ink-jet recording sheet with an ink-jet printer without being subjected to a post-treatment, and the ink-jet image has the following set of color coordinate values in a $L^*a^*b^*$ color space when L^* is in a range of $65 < L^* < 75$:

(i) $-20 < a^* < 20$; and

(ii) $-20 < b^* < 20$,

the water insoluble colored polymer particles contain a colorant covered with a polymer, provided that when the colorant is a pigment, a weight ratio of the polymer to the pigment is in the range of 0.6 to 10; and when the colorant is a dye, a weight ratio of the polymer to the dye is in the range of 0.4 to 10.

2. (Currently amended) The water-based cyan ink of claim 1, wherein ~~the pigment particles or~~ the water insoluble colored polymer particles has a volume average particle diameter of 10 to 200 nm.

3. (Currently amended) The water-based cyan ink of claim 1 further comprises a water-soluble polymer, wherein ~~and secondary particles of the pigment particles or~~ the water insoluble colored polymer particles satisfy Formula (1):

Formula (1)

$$10 X^{-0.7} < Y < 40 X^{-0.7}$$

wherein X is a volume average particle diameter; and

Y is a polydispersity index which is defined by the following formula:

$$Y = (D_{90} - D_{10}) / D_{50},$$

wherein D_{90} , D_{50} , and D_{10} are respectively particle diameters at which an integral of a distribution function dG ($dG = F(D) \times dD$) is equal to 90 volume%, 50 volume% and 10 volume% of the total volume of ~~the secondary particles or~~ the water insoluble colored polymer particles, wherein G is a volume of the particle, D is a diameter of ~~the secondary particle~~ the particle and $F(D)$ is a volume frequency function.

4. (Currently amended) The water-based cyan ink of claim 1 further comprises a water-soluble polymer in an amount of not less than 2 times of weight of ~~the pigment particles or~~ the water insoluble colored polymer particles.

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

8. (Currently amended) An ink set for ink-jet printing containing a water-based cyan ink which comprises ~~pigment particles or~~ water insoluble colored polymer particles,

wherein an ink-jet image is formed by jetting the ink set on a porous ink-jet recording sheet with an ink-jet printer without being subjected to an post-treatment, and the ink-jet image has the following set of color coordinate values in a $L^*a^*b^*$ color space when L^* is in a range of $50 < L^* < 90$:

(i) $-20 < a^* < 20$; and

(ii) $-20 < b^* < 20$,

the water insoluble colored polymer particles contain a colorant covered with a polymer, provided that when the colorant is a pigment, a weight ratio of the polymer to the pigment is in the range of 0.6 to 10; and when the colorant is a dye, a weight ratio of the polymer to the dye is in the range of 0.4 to 10.

10. (Cancelled)

11. (Cancelled)